Remarks

Claims 1-20 were present in the application as filed. In response to a restriction dated September 21, 2006, Applicants elected the claims of Group I (claims 1-18). Claims 1-20 are pending with claims 19 and 20 being withdrawn from consideration as being drawn to non-elected inventions.

Rejection under 35 U.S.C. §103

Claims 1, 2, and 7-18 are rejected under 35 U.S.C. §103(a) as being unpatentable over McGinnis *et al.* (US 2004/0120942). Specifically, the Office Action asserts that McGinnis *et al.* teaches a device and process for preparing autologous thrombin from whole blood, plasma or a plasma fraction, and that one skilled in the art would have been motivated to use whole blood in the process of McGinnis because it would have shortened and simplified the process. The Office Action further contends that there would have been a reasonable expectation of success because McGinnis teaches that the device is suitable for use with whole blood.

Applicants assert that the invention of the present method by Applicants occurred at a date earlier than the filing date of McGinnis et al. In support, Applicants submit a Declaration under 37 CFR 1.131 to establish invention of the subject matter of the rejected claims prior to the effective date of McGinnis et al. Thus, McGinnis is ineligible as prior art with respect to the claimed invention.

Regardless of whether or not McGinnis qualifies as prior art for purposes of 35 U.S.C. §103, Applicants respectfully submit that the claimed method is not obvious in view of McGinnis et al.

McGinnis et al. discloses a device that is suitable for the preparation of thrombin allegedly from "whole blood, plasma or a plasma fraction." However, at the time of invention of the device of McGinnis, one of skill in the art would have known that a thrombin preparation was always obtained by using the plasma fraction of whole blood, that is, a fraction from which the

majority of blood cells have been removed. Likewise, one of skill would appreciate that, unlike precipitation of plasma, ethanol precipitation of anticoagulated whole blood results in a starting material characterized by marked hemolysis, with substantial cell debris and cellular proteins, making isolation of a plasma protein (thrombin) from such a cell gemisch more complex than simply starting with essentially cell-free plasma. Thus, based on the knowledge of one of skill in the art, there is no apparent reason evident from the teachings of McGinnis to eliminate the plasma isolation step.

Not surprisingly, in describing the invention, McGinnis exemplifies only the preparation of thrombin from anticoagulated platelet poor plasma (paragraphs [0024] et seq.); the reference does not contain any evidence from which one of skill would conclude that, contrary to the conventional wisdom, preparation of thrombin from an anticoagulated whole blood starting material was either feasible or desirable.

In support of their position that the claimed method would not have been obvious in view of McGinnis, nor that there would have been an expectation of success, to substitute whole blood for plasma as the starting material, Applicants submit herewith a Declaration of Sherwin V. Kevy, M.D. Applicants also submit a recently published article from the scientific literature (Kumar et al., *Whole blood thrombin: development of a process for intra-operative production of human thrombin.* J Extra Corpor Technol., 39(1): 18-32 March 2007), which establishes that only recently has a method of producing human thrombin directly from anticoagulated whole blood been reported.

Claims 3-5 are rejected under 35 U.S.C. §103(a) as being unpatentable over McGinnis et al. and further in view of Sato et al.

Claims 3-5 are directed to use of particular anticoagulants in combination with mannitol as taught by Sato. These anticoagulants are well known to those of skill in the art. The teachings of Sato et al. do not compensate for the deficiencies in the teachings of McGinnis et al. as discussed above. Thus, the combination of McGinnis and Sato references do not render the claimed method obvious.

Withdrawal of the rejection under 35 U.S.C. §103(a) is respectfully requested.

It is respectfully submitted that the above-identified application is now in condition for allowance and favorable reconsideration and prompt allowance of these claims are respectfully requested. Should the Examiner believe that anything further is desirable in order to place the application in better condition for allowance, the Examiner is invited to contact Applicants' undersigned attorney at the telephone number listed below.

Respectfully submitted,

Kathy Smith Dias
Attorney for Applicants
Reg. No. 41,707

Dated: June 14, 2007

HESLIN ROTHENBERG FARLEY & MESITI P.C.
5 Columbia Circle
Albany, New York 12205
Telephone: (518) 452-5600
Facsimile: (518) 452-5579